



10-21-04

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032/02161 A05

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Shmuel AKERMAN, et al.
Serial Number: 09/856,761
Filed: May 23, 2001
For: A Method for Forming a Perspective Rendering from a Voxel Space
Art Unit: 2671
Examiner: Sealey, Lance W.

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Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO FINAL OFFICE ACTION

Sir:

The present letter is in response to a Final Office Action dated July 21, 2004 and is further to an interview conducted September 7, 2004.

The present application includes claims 1-52.

Applicants thank the Examiner for the interview with applicant's representative on September 7, 2004, in which agreement has been reached on the patentability of the claims.

Claims 1-5, 13, 19, 20, 22, 23, 28-30, 32-38, 40-49 and 51-52 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Foley et al., Computer Graphics: Principles and Practice Second Edition in C and for some of the claims another reference.

As explained in the interview, applicants respectfully disagree.

Claim 1 requires:

- (b) accumulating the effect of opacity along a ray path, using opacity values at sampling points, into a ray storage value;
- (c) associating points along the cast ray with material classes; and
- (e) if the ray is determined to pass between classes, accumulating a lighting contribution of a surface, associated with a boundary between two classes, into the ray storage value.


In Foley, the effect of opacity along a ray path is accumulated into a ray as described on the last paragraph of page 1036. Foley, however, does not teach or suggest accumulating a lighting contribution of a surface, associated with a boundary between two classes, into the ray storage value.

Even if the term "material classes" is interpreted to mean different colors (e.g., different R, G, B or O values), as suggested by the Examiner, acts (d) and (e) are not carried out by Foley, as Foley does not teach or suggest determining if a ray passes between material classes and/or accumulating a lighting contribution of a surface, associated with a boundary between two classes, if the ray is determined to pass between classes.

For brevity, the dependent claims are not argued herein. The dependent claims are allowable at least because claim 1 is allowable.

In view of the above remarks, and the agreement reached in the interview, allowance of the application is respectfully awaited. If, however, the Examiner encountered a last minute problem, which can be solved in a telephone conversation, applicants respectfully request that the Examiner call the undersigned at 1 (877) 428-5468. Please note that this is a direct *toll free* number in the US that is answered in the undersigned's Israel office. Israel is 7 hours ahead of Washington.

Respectfully submitted,
Shmuel AKERMAN, et al.


for/ Yaakov Schatz,
Reg. No. 44,320

October 18, 2004
William H. Dippert, Esq.
Reed Smith LLP
599 Lexington Avenue, 29th Floor
New York, NY 10022-7650



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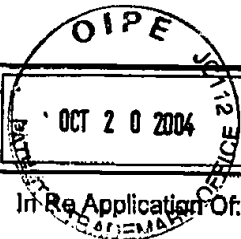
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Reed Smith LLP
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29th Floor
New York, New York 10022-7650
Telephone: 212-521-5400; Facsimile: 212-521-5450

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Applicant: Shmuel Akerman et al.
Serial No: 09/856,761
Filing Date: May 23, 2001
For: Method For Forming A Perspective Rendering From A Voxel Space
Enclosures: (1) Transmittal Letter (in duplicate);
(2) Response To Final Office Action (2 pages);
(3) Acknowledgement postcard

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TRANSMITTAL LETTER
(General - Patent Pending)

Docket No.
032/02161

In Re Application Of: Shmuel AKERMAN et al.

Application No.	Filing Date	Examiner	Customer No.	Group Art Unit	Confirmation No.
09/856,761	May 23, 2001	SEALEY, Lance W.	44909	2671	3117

Title: A METHOD FOR FORMING A PERSPECTIVE RENDERING FROM A VOXEL SPACE

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Transmitted herewith is:

Response to Final Office Action dated July 21, 2004

in the above identified application.

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Paul Fenster

Signature

Paul FENSTER, Reg. No. 33,877

William H. Dippert, Esq.
Reed Smith LLP
599 Lexington Avenue, 29th Floor
New York, NY 10022-7650

Tel: (212) 521-5400

Dated: October 18, 2004

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